



## PATENT ABSTRACTS OF JAPAN

(11) Publication number: **01288724 A**(43) Date of publication of application: **21.11.89**(51) Int. Cl. **G01F 1/58**(21) Application number: **63118342**(71) Applicant: **TOSHIBA CORP**(22) Date of filing: **17.05.88**(72) Inventor: **NAGAO HITOSHI**(54) **ELECTRODE FOULING DETECTOR FOR ELECTROMAGNETIC FLOWMETER**

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## (57) Abstract:

**PURPOSE:** To enable the performing of a periodic inspection and a cleaning alarm of a flowmeter, by measuring a drop in electric conductivity between electrodes due to adherence of sludge.

**CONSTITUTION:** A power source 1 supplies a power 3 to functions through a power source circuit 2, an exciting circuit 4 runs a current to an exciting coil 5 to generate a magnetic flux in a measuring tube 6 and with a conducting liquid flowing through the magnetic flux, an electromotive force is generated in an electrode 7. Then, the electromotive force is converted into a flow rate signal 12 with a differential amplifier 11 to be outputted. Then, measurement of a flow rate and a conductivity and of the conductivity is switched by a switching circuit 8 on a pulse 10 generated for a fixed time is converted into an electrical signal with a conductivity detection circuit 13 to be inputted into an abnormality discriminator circuit 14. Then, when the conductivity is lowered abnormally as compared with the preceding operation or an absolute value of the conductivity is lowered, an abnormality alarm 15 is

